


39. The file server node of claim 38, further configured to:
determine a load on each physical port; and
use the determined load for load balancing over the good physical ports when migrating the virtual IP addresses associated with the failed physical port to the good physical ports of the node.
40. The file server node of claim 38, wherein:
each physical port of the file server node is within a one of a plurality of subnets; and
virtual IP addresses are migrated preferentially to good physical port that is in the same subnet as the failed physical port.

REMARKS

Claim 27 has been amended; claims 35-40 have been added.
Attached is a marked-up version of the changes being made by the current amendment.
Applicant asks that all claims be examined. Enclosed is a \$138 check for excess claim fees. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 01 Oct. 01



Hans R. Troesch
Reg. No. 36,950

Fish & Richardson P.C.
2200 Sand Hill Road, Suite 100
Menlo Park, California 94025
Telephone: (650) 322-5070
Facsimile: (650) 854-0875

Applicant : Omar Gadir, et al.
Serial No. : 09/911,902
Filed : July 23, 2001
Page : 4

Attorney's Docket No.: 07575-053001



Version with markings to show changes made

In the claims:

Claim 27 has been amended as follows:

27. (Amended) The product of claim 25, further comprising instructions to:
recognize a virtual server that is identified as not to be migrated in the event of node failure and prevent migration of a so-identified virtual server[s] when it is on a node that fails.

Claims 35-40 have been added:

35. (New) A computer program product, tangibly stored on a computer-readable medium or propagated signal, for execution in a file server node in which one or more virtual servers each have one or more virtual IP addresses associated with physical ports, the product comprising instructions operable to cause a programmable processor to:

detect a failure of a physical port on a file server node, the node having two or more physical ports, the node having one or more virtual servers each have one or more virtual IP addresses associated with physical ports;

identify one or more other physical ports on the file server node as being good; and
migrate each virtual IP addresses associated with the failed physical port to a good physical port on the file server node.

36. (New) The product of claim 35, further comprising instructions to:

determine a load on each physical port on the first node; and
use the determined load for load balancing over the good physical ports when migrating the virtual IP addresses associated with the failed physical port to the good physical ports of the file server node.

37. (New) The product of claim 35, wherein:

each physical port of the file server node is within a one of a plurality of subnets; and
virtual IP addresses are migrated preferentially to good physical port that is in the same subnet as the failed physical port.

38. (New) A file server node, comprising:

two or more physical ports;

the node being configured to run two or more virtual servers, each virtual server having as exclusive resources a virtual interface to clients and one or more file systems, each virtual interface comprising a virtual IP address;

the node being further configured to detect a failure of a first physical port, determine which other physical port or ports of the node is healthy, and to migrate all virtual IP addresses associated with the failed first physical port to a good physical port of the first node.

39. (New) The file server node of claim 38, further configured to:

determine a load on each physical port; and

use the determined load for load balancing over the good physical ports when migrating the virtual IP addresses associated with the failed physical port to the good physical ports of the node.

40. (New) The file server node of claim 38, wherein:

each physical port of the file server node is within a one of a plurality of subnets; and
virtual IP addresses are migrated preferentially to good physical port that is in the same subnet as the failed physical port.